## AMENDMENTS TO THE CLAIMS

**This listing of claims will replace all prior versions and listings of claims in the application:**

## LISTING OF CLAIMS:

1. (Currently amended) ~~A~~ An isolated reductase comprising

(i) ~~an~~ the amino acid sequence of SEQ ID NO:1 ~~having a substitution at amino acid position 54 or 104 or at both of the amino acid positions 54 and 104, or~~, wherein

the amino acid at position 54 is glutamine, glycine, serine, threonine, cysteine, asparagine, alanine, valine, isoleucine, methionine, lysine, arginine, aspartic acid, glutamic acid, tyrosine, proline or histidine;

the amino acid at position 245 is lysine or another amino acid; and

the amino acid at position 271 is asparagine or another amino acid

(ii) ~~an~~ the amino acid sequence ~~defined in (i) having further deletion, substitution, or addition of an amino acid or acids~~ of SEQ ID NO: 1, wherein

the amino acid at position 104 is cysteine;

the amino acid at position 245 is lysine or another amino acid; and

the amino acid at position 271 is asparagine or another amino acid

(iii) the amino acid sequence of SEQ ID NO: 1, wherein

the amino acid at position 54 is glutamine, glycine, serine, threonine, cysteine, asparagine, alanine, valine, isoleucine, methionine, lysine, arginine, aspartic acid, glutamic acid, tyrosine, proline or histidine;

the amino acid at position 104 is cysteine;

the amino acid at position 245 is lysine or another amino acid; and

the amino acid at position 271 is asparagine or another amino acid.

***Claims 2-11 (Canceled)***

12. (currently amended): ~~A~~ The reductase according to claim ~~9~~ 1, wherein the amino acid at amino acid position 245 is ~~substituted by~~ arginine.

13. (currently amended): ~~A~~ The reductase according to claim ~~9~~ 1, wherein the amino acid at amino acid position 271 is ~~substituted by~~ aspartic acid.

14. (currently amended): ~~A~~ The reductase according to claim 1, wherein

(a) the amino acid at amino acid position 54 is ~~substituted by~~ glutamine and the amino acid at amino acid position 104 is substituted by cysteine;

(b) the amino acid at amino acid position 54 is ~~substituted by~~ glutamine,

the amino acid of the position 104 is ~~substituted by~~ cysteine and ~~said further substitution comprises a substitution of~~ the amino acid at amino acid position 271 ~~by~~ is aspartic acid;

(c) the amino acid at amino acid position 54 is ~~substituted by~~ glutamine and

the amino acid at amino acid position 104 is ~~substituted by~~ cysteine, and

~~said further substitution comprises~~

the amino acid ~~substitution~~ at amino acid position 245 ~~by~~ is arginine, and

the amino acid ~~substitution~~ at amino acid position 271 ~~by~~ is aspartic acid;

(d) the amino acid ~~of the~~ at amino acid position 54 is ~~substituted by~~ glutamine, and ~~said further substitution comprises~~ the amino acid ~~substitution~~ at amino acid position 245 ~~by~~ is arginine;

(e) the amino acid ~~of the~~ at amino acid position 54 is ~~substituted by~~ glutamine, ~~and~~

~~said further substitution comprises~~

~~substitution of~~ the amino acid at amino acid position 245 ~~by~~ is arginine, and

~~substitution of~~ the amino acid at amino acid position 271 ~~by~~ is aspartic acid; or

(f) the amino acid at amino acid position 54 is ~~substituted by~~ glutamine and ~~said further substitution comprises substitution of~~ the amino acid at amino acid position 271 ~~by~~ is aspartic acid.

15. (Withdrawn): A polynucleotide comprising a nucleotide sequence that encodes the amino acid sequence of the reductase of claim 1.

16. (Withdrawn): A vector comprising the polynucleotide according to claim 15.

17. (Withdrawn): A transformant comprising the polynucleotide according to claim 15.

18. (Withdrawn): A vector according to claim 16, which further comprises a polynucleotide having a nucleotide sequence that encodes the amino acid sequence of a protein capable of converting NADP or NAD into NADPH or NADH.

19. (Withdrawn): A transformant according to claim 17, which further comprises a polynucleotide having a nucleotide sequence that encodes the amino acid sequence of a protein capable of converting NADP or NAD into NADPH or NADH.

20. (Withdrawn): A production method for (S)4-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant according to claim 17, or a treated material thereof.

21. (currently amended): A method for modifying an enzyme, ~~comprises~~ comprising substituting at least one ~~single amino acid~~ of the amino acids at amino acid positions 54 and 104 in the amino acid sequence of SEQ ID NO:1, ~~thereby selectivity of said enzyme is improved~~

wherein the amino acid at position 54 is substituted by glutamine, glycine, serine, threonine, cysteine, asparagine, alanine, valine, isoleucine, methionine, lysine, arginine, aspartic acid, glutamic acid, tyrosine, proline or histidine; and

the amino acid at position 104 is substituted by cysteine.

22. (Withdrawn): A production method for a modified enzyme gene, which comprises replacing a codon that corresponds at least one of the amino acids of the positions 54 and 104 of an amino acid sequence of SEQ ID NO:1, with a codon that corresponds to the another amino acid(s), in a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO:1.

23. (currently amended): ~~A~~ The reductase according to claim ~~10~~ 1, wherein the amino acid at amino acid position 245 is ~~substituted by~~ arginine.

24. (currently amended): ~~A~~ The reductase according to claim ~~11~~ 1, wherein the amino acid at amino acid position 271 is ~~substituted by~~ aspartic acid.

25. (Withdrawn): A polynucleotide comprising a nucleotide sequence that encodes the amino acid sequence of the reductase of claim 9.

26. (Withdrawn): A vector comprising the polynucleotide according to claim 25.

27. (Withdrawn): A transformant comprising the vector according to claim 16.

28. (Withdrawn): A transformant comprising the vector according to claim 26.

29. (Withdrawn): A transformant according to claim 27, which further comprises a polynucleotide having a nucleotide sequence that encodes the amino acid sequence of a protein capable of converting NADP or NAD into NADPH or NADH.

30. (Withdrawn): A transformant according to claim 28, which further comprises a polynucleotide having a nucleotide sequence that encodes the amino acid sequence of a protein capable of converting NADP or NAD into NADPH or NADH.

31. (Withdrawn): A production method for (S)4-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant according to claim 19, or a treated material thereof.

32. (Withdrawn): A production method for (S)4-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant according to claim 27, or a treated material thereof.

33. (Withdrawn): A production method for (S)4-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant according to claim 28, or a treated material thereof.